



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/687,652	10/13/2000	Hai U. Wang	CTCH-P03-006	6630

28120 7590 12/01/2003
ROPES & GRAY LLP
ONE INTERNATIONAL PLACE
BOSTON, MA 02110-2624

EXAMINER

ANDRES, JANET L

ART UNIT	PAPER NUMBER
----------	--------------

1646

DATE MAILED: 12/01/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/687,652

Applicant(s)

WANG ET AL.

Examiner

Janet L. Andres

Art Unit

1646

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 46, 47, 49, 50, 77-89, 92, 93, 95-100, 107, 108, 114, 120 and 151-157 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 47, 50, 88, 89, 92, 93, 95-100, 107, 108, 151, 152, 156 and 157 is/are allowed.
- 6) ☒ Claim(s) 46, 49, 77-86, 114, 120, AND 153-155 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

RESPONSE TO AMENDMENT

1. Applicant's amendment filed 8 September 2003 is acknowledged. Claims 46, 47, 49, 50, 77-89, 92, 93, 95-100, 107, 108, 114, 120, and 151-157 are pending and under examination in this office action. The text of those sections of Title 35, U.S. Code, not included in this action can be found in a prior office action.

Information Disclosure Statement

2. The information disclosure statement filed 8 September 2003 has been considered in full. The '730 patent is lined through because it has already been made of record by the Examiner.

Claim Rejections Withdrawn

2. The rejection of claims 46, 49, 77-82, 84, 85, 114, 120, and 153 as anticipated by the '497 patent is withdrawn in response to Applicant's amendment and argument that the '497 patent does not teach selective expression of ephrin A1 and B1 and eph A2 and B1 and because these molecules do not appear to be selectively expressed.

3. The rejection of claims 47, 50, 80, 81, 88, 89, 92, 95-100, 107, 108, and 152 as anticipated by the '730 patent is withdrawn in response to Applicant's amendment and argument that the correct filing date is March, 1999. The PCT document is not applied because it does not teach angiogenesis and thus does not anticipate the claims as amended.

New Grounds of Rejection

4. Claims 46, 49, 77-86, 114, 120, and 153-155 are newly rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for methods involving ephrin B2 and eph B4, does not reasonably provide enablement for all ephrins and ephs. The specification

Art Unit: 1646

does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to practice the invention commensurate in scope with these claims.

These claims require that the ephrins and ephs used be selectively expressed on arterial or venous cells. However, while other ephrins and ephs, such as ephrin A1, ephrin B1, eph A2, and eph B1 have been identified as being involved in angiogenesis, they do not appear to be selectively expressed. Were they to be, the '497 patent would in fact anticipate the invention, because this expression would be inherent and Applicant's claims do not require that the assays be performed using arterial and venous cells, only that the molecules used be selectively expressed. Since neither the '497 patent nor the subsequent art teaches selective expression, and since neither the art nor Applicant teaches selective expression of any other ephs or ephrins, it is not predictable that such molecules exist. Thus, while the techniques for identifying other molecules that could be used as claimed are straightforward, neither the art nor Applicant provides an expectation of success. The provision of art-recognized procedure is not adequate guidance as to what other molecules are selectively expressed, but is merely an invitation to the artisan to use the current invention as a starting point for further experimentation. What is provided is thus the idea for an invention, and the invitation to experiment to implement this invention, not the invention itself.

CLAIMS 46, 49, 77-86, 114, 120, AND 153-155 ARE REJECTED. CLAIMS 47, 50, 88, 89, 92, 93, 95-100, 107, 108, 151, 152, 156, AND 157 ARE ALLOWED.

Art Unit: 1646

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Janet Andres, Ph.D., whose telephone number is (703) 305-0557. The examiner can normally be reached on Monday through Friday from 8:00 am to 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Yvonne Eyler, Ph.D., can be reached at (703) 308-6564. The fax phone number for this group is (703) 872-9306 or (703) 872-9307 for after final communications.

Communications via internet mail regarding this application, other than those under U.S.C. 132 or which otherwise require a signature, may be used by the applicant and should be addressed to yvonne.eyler@uspto.gov.

All Internet email communications will be made of record in the application file. PTO employees do not engage in Internet communications where there exists a possibility that sensitive information could be identified or exchanged unless the record includes a properly signed express waiver of the confidentiality requirements of 35 U.S.C. 122. This is more clearly set forth in the Interim Internet Usage Policy published in the Official Gazette of the Patent and Trademark Office on February 25, 1997 at 1195 OG 89.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0196.

Janet Andres, Ph.D.
November 27, 2003


JANET ANDRES
PATENT EXAMINER